

**FIVE NEW WESTERN DOLICHOPODIDAE  
(DIPTERA).<sup>1</sup>**

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The following report deals with five apparently undescribed species of western Dolichopodidae.

***Dolichopus utahensis* n. sp.**

*Male*: Length, 4.3 mm.; length of wing, 4 mm. Face golden pollinose, moderately wide, the sides nearly parallel. Front metallic green, dulled somewhat with brown pollen, especially along the orbits, where the ground color is barely discernible. Palpi yellow. Proboscis blackish. First antennal joint yellow; second and third joints black, the latter scarcely longer than wide, obtusely pointed at tip. Postocular cilia pale, about six of the upper cilia on each side are black. Dorsum of thorax metallic green, dulled with brownish pollen; pleura dulled with whitish pollen. Scutellum metallic green, with single pair of prominent marginal bristles, the posterior margin with delicate pale cilia. Abdomen metallic green with bronze reflections, its lateral and ventral portions whitish pollinose. Hypopygium blackish-green, dulled with white pollen; lamellae elongate-oval, white with narrow black border, jagged and bristly at tip.

Fore coxae yellow, the anterior surface with a scattering of pale and black hairs, the latter especially noticeable on inner portions; middle and hind coxae concolorous with pleura, their tips narrowly yellowish. Femora and tibiae yellow; middle and posterior pairs each with a single preapical bristle, the latter without cilia below, but possessing a row of delicate pale hairs, easily overlooked, on lower inner edge. Middle tibiae relatively long, with a conspicuous, elongate opalescent spot at tip on the outer surface; posterior tibiae with a silvery pollinose stripe when viewed from behind. Fore tarsi black from tip of first joint; middle and hind tarsi entirely black. Joints of fore tarsi as 16-8-6-4-4; of middle tarsi as 18-10-7-4-4; of hind tarsi as 20-18-11-7-5. Calypters and halteres yellow, the former with black cilia.

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<sup>1</sup> Contribution from the Department of Entomology, Utah Agricultural Experiment Station.

Wings grayish hyaline, tinged with brown along anterior margin; fourth vein bent before the middle; costa somewhat thickened at tip of first vein, but without a definite knot-like, or elongated, swelling; anal angle rounded, prominent.

*Female*: Like male in general coloration; the face is broader, its pollen of a silvery-brownish hue; middle tibiae without the opalescent spot at tip, which is so conspicuous in the male; middle tarsi are yellowish at base.

Described from holotype male and allotype female, both taken at Park City, Utah, July 11, 1941, by G. F. Knowlton and F. C. Harmston. Types to be deposited in the U. S. National Museum.

*Taxonomy*: Three species of *Dolichopus* are known from North America which are alike in possessing a smooth, opalescent area at the tip of middle tibiae. Two of the species, *fulvipes* Loew and *inflatus* Aldrich, have the middle basitarsi yellow at base; the third species, *utahensis* n. sp., has middle tarsi wholly black. The last two antennal joints are black in *inflatus* and *utahensis*, whereas in *fulvipes* the corresponding parts are yellow. The hind tarsi are wholly black in *fulvipes* and *utahensis*, yellow at base in the case of *inflatus*. The type locality of *fulvipes* is Illinois; it is recorded also as occurring in Maine, New York, New Hampshire and Ontario; *inflatus* was described from a male taken in Alaska.

#### *Dolichopus aboriginis* n. sp.

*Male*: Length, 4.4 mm.; length of wing, 4 mm. Face moderately wide, the sides nearly parallel, silvery pollinose. Front shining, metallic violet, with bluish reflections, narrowly yellowish pollinose along orbits. Antennae black; first joint brownish-red on lower half; third joint scarcely longer than broad, obtusely pointed; arista slightly pubescent. Proboscis black. Palpi yellowish-brown with minute pale cilia on anterior surfaces and a short, prominent black bristle at tip. Postocular cilia white, about six of the uppermost cilia on each side are black.

Dorsum of thorax bronze-green, dulled with yellow pollen, the median and lateral portions more brownish. Scutellum with a single pair of prominent marginal bristles, its posterior margin fringed with delicate pale cilia. Abdomen metallic green with bronze reflections, lightly whitish pollinose on lateral portions. Hypopygium blackish, its lamellae of moderate size, elongate-oval, whitish with narrow black border, jagged and bristly at tip.

Fore and hind coxae yellow, the latter in some specimens

tending toward a brownish hue. Fore coxae with delicate pale hairs on anterior surface and a few prominent black bristles at tip; middle and hind pairs each with a single pre-apical bristle, the latter with pale cilia on lower, inner edge which are minute on basal half, but fully as long as the width of femora on the apical half of femora. Tibiae yellow, the posterior pair brownish and slightly incrassated, on apical one-fifth. Fore and middle tarsi blackish from the tip of first joint; middle basitarsus with a prominent, short bristle on upper surface; posterior tarsi wholly black. Joints of fore tarsi as 20-10-9-5-4; of middle tarsi as 27-13-10-6-4; of hind tarsi as 25-20-12-7-5. Calypters and halteres yellow, the former with black cilia. Wings large, broadest opposite the cross-vein; fourth vein with an abrupt bend near basal third, from which point it runs nearly parallel with the third vein; costa with a prominent, elongate-oval thickening at tip of first vein; wings narrowed toward the base, the anal angle not at all prominent.

*Female*: Like the male in nearly all respects; the face is broader; front more greenish, without violet reflections; third antennal joint shorter, less pointed.

Described from 5 males and 1 female. Holotype male, allotype female and two paratype males taken at Mountain Home, Utah, July 21, 1939; two paratype males taken on Mt. Timpanogos, Utah, July 5, 1941, all collections by G. F. Knowlton and F. C. Harmston. Holotype and allotype to be deposited in the U. S. National Museum; paratypes in the insect collections of the California Academy of Sciences and the Utah Agricultural Experiment Station.

*Taxonomy*: **Dolichopus aboriginis** n. sp. would trace to *D. flavicoxa* Aldrich, or possibly to *D. brevipilosus* Van Duzee, in the Van Duzee and Curran key, American Museum Novitates No. 683, 1934. The elongate thickening of the costa at tip of first vein readily distinguishes **aboriginis** n. sp. from these two species, both of which have a small, knot-like, thickened area. In addition, the fore coxae of *brevipilosus* are blackened at base on the outer surface; in *flavicoxa* the middle femora possess two preapical bristles.

**Hercostomus wasatchensis** n. sp.

*Male*: Length, 3.3 mm.; length of wing, 3 mm. Face silvery pollinose, considerably narrowed below. Front broad, concolorous with face. Palpi and proboscis yellowish-brown, bearing small black hairs. Antennae entirely black; third

joint slightly longer than broad, pointed, evenly rounded below; arista scarcely pubescent, evenly tapering to a sharp point. Postocular cilia white, about five of the uppermost cilia on each side are black.

Dorsum of thorax and the pleura heavily dusted with white pollen, which nearly hides the greenish-bronze ground color. Dorsal and lateral portions of metallic green; the ventral portion thickly dusted with white pollen. Hypopygium large and broad, sessile, greenish-black. Hypopygial lamellae yellow, consisting of two linear processes, one much longer than the other, both fringed with prominent black bristles.

Fore coxae yellow, blackened on outer basal portion; anterior surfaces with small, scattered black hairs and prominent black bristles at tip. Middle and hind coxae concolorous with pleura, their tips narrowly yellowish. Femora yellow, the posterior pair broadly blackened at tip. Tibiae yellow, the posterior pair blackened and slightly thickened on apical one-third. Fore and middle tarsi black from tip of first joint; the first and second joints of middle tarsi bear a row of conspicuous, yet delicate, cilia on the plantar surface, these cilia being a continuation of the cilia which arise on the apical one-fourth of middle tibiae. The middle tibiae in *wasatchensis* n. sp. are practically identical in structure with the corresponding tibiae of *H. cryptus* H. & K., the latter being shown in figure 6, page 128 of the *Canadian Entomologist*, Vol. 73, July 1941. Joints of fore tarsi as 8-4-3-3-4; of middle tarsi as 15-9-5-4-4; of posterior tarsi as 10-14-8-5-5. Calypters and halteres yellow, the former with black cilia.

Wings grayish hyaline, darkened along anterior margin from a point slightly beyond the posterior cross-vein: veins black; costa thickened at tip of first vein, from which point it tapers rapidly toward tip of second vein. The wings of *wasatchensis* are very similar to those of *H. neocryptus* H. & K. The drawing of the wing of the latter species, figure 15, page 128, the *Canadian Entomologist*, July 1941, also well illustrates the wing of *wasatchensis* n. sp.

*Female*: Like the male in most respects. Lacks the peculiar chaetation of middle tarsi; costa is not thickened; both posterior femora and the wings lack the black spot at apices.

Described from holotype male, allotype female and one paratype male, all taken July 6, 1941, on Mt. Timpanogos, Utah, by F. C. and V. H. Harmston. Holotype and allotype deposited in the U. S. National Museum; paratype in the senior author's collection.

*Taxonomy:* The ciliation of the first two joints of middle tarsi, together with the yellow femora, readily distinguish this species from other known American species of *Hercostomus*.

***Polymedon californicus* n. sp.**

*Male:* Length, 4.4 mm.; length of wing, 4.2 mm. Face bright, silvery pollinose, spatula-shaped, narrowed in the middle, broadest opposite the lower margin of eyes, extending below the lower corner of eyes a distance equal to its greatest width. Front silvery pollinose, the bluish-green ground color discernible near the middle. First two antennal joints yellow, blackened on extreme upper edges; third joint black, slightly longer than broad, obtusely pointed; arista thick at base, tapering rapidly, without evident pubescence. Palpi and proboscis black. Postocular cilia white, about eight of the upper bristles and two near the proboscis on each side are black.

Dorsum of thorax and abdomen shining metallic green; pleura and lateral portions of abdomen lightly silvery pollinose. Bristles of thorax strong, black; scutellar bristles consisting of a pair of large, prominent bristles, lateral to which is a pair of small, hair-like setae. Hypopygium pedunculate, black, lightly dusted with white pollen; lamellae of moderate size, somewhat triangular, yet rounded on apical portion, the stem yellowish, shading to black beyond the middle, fringed along edges with black bristles.

Fore coxae yellow, tinged with green on outer, basal portions, the anterior surfaces with black hairs and bristles; middle and hind coxae black, yellow on apical third. Femora and tibiae yellow, the middle and hind femora each with a single preapical bristle; bristles of middle and posterior tibiae prominent. Fore and middle tarsi black from the tip of first joint; second to fourth joints of fore tarsi noticeably flattened; middle tarsi with conspicuous bend between the second and third joints, a condition similar to that occurring in the males of several species of the genus; posterior tarsi black, the first joint more brownish at base. Joints of fore tarsi as 14-5-4-3-4; of middle tarsi as 18-6-5-5-4; of posterior tarsi as 15-19-11-6-5; calypters and halteres pale yellow, the former brownish at apex, bearing long, black cilia.

Wings grayish hyaline, tinged with brown along veins and anterior margin; costa almost imperceptibly thickened before the tip of the first vein; anal angle prominent, rounded.

Described from one male, taken at Sonora, California, September



8, 1941, by F. C. and V. H. Harmston. Type to be deposited in the California Academy of Sciences insect collection.

*Taxonomy:* **Polymedon californicus** n. sp. is readily distinguishable from *P. nimius* Aldrich, in lacking the greatly thickened costal vein, so prominent in the latter species. It differs from *P. triangularis* Aldrich in the color and structure of the hypopygial lamellae. The lamellae of *californicus* n. sp. are yellow at base, shading into black from a point slightly beyond the middle, and are triangular with rounded apical portion. In *triangularis* the lamellae are yellow, the black distal border appearing squarely cut-off.

**Medeterus idahoensis** n. sp.

*Male:* Length, 1.6 mm. Face black, its sides nearly parallel. Front black, lightly dusted with white pollen. Antennae black; third joint small, rounded; arista apical. Postocular cilia pale.

Dorsum of thorax, scutellum and abdomen black, lightly dusted with white pollen. Bristles above fore coxae pale, the remaining thoracic bristles blackish. Hypopygium black, relatively large, pedunculated; inner lamellae yellow; outer lamellae consist of a pair of black, needle-like structures.

Coxae, femora and tibiae black, of usual form. Tarsi black at base, shading into yellow at the apices. First joint of posterior tarsi plain, slightly shorter than the succeeding joint. Calypters and halteres blackish, the former with pale cilia.

Wings grayish hyaline; veins black; fifth vein greatly broadened from a point near the basal third, this thickened area being about the same length as the remaining portion of the fifth vein; cross-vein one-third the length of last portion of fifth vein; anal angle prominent, evenly rounded. Described from one male, taken at Sandpoint, Idaho, September 28, 1941, by F. C. and V. H. Harmston. The specimen was collected from near the base of a coniferous tree. Unfortunately the type specimen was somewhat damaged after the description was made. Type to be deposited in the California Academy of Sciences insect collection.

*Taxonomy:* **Medeterus idahoensis** n. sp. is the third member of the genus known to occur in North America possessing a greatly incrossated fifth vein. It, like *M. crassivenis* Curran, described from New York, has black femora and tibiae. The two species are readily separated by the difference in the comparative length

of the cross-vein and the last section of the fifth vein. In *crassivenis* the last section of fifth vein is hardly one-half the length of cross-vein, whereas in *idahoensis* the cross-vein is only about one-third the length of the last section of fifth vein. The third species, *M. alpinus* H. & K., has a fifth vein greatly broadened; it is readily distinguished by the yellow femora and tibiae. *M. alpinus* was described from California.

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### ON TOM SPALDING.

(Extract from Utah, A Guide to the State, pages 416-17; published by Hastings House, N. Y., and copyright by Utah State Institute of Fine Arts.—By permission.)

"Little Billie King, a roving printer . . . wandered into town (Eureka, Utah) in 1899. He soon became known as the 'Belfast Spider' because of his tales of championship prize fights he had won. For years he lived in a plank cottage at the head of Church Street, and built fires only when he cooked. In summer, it was Billie's custom to hie himself to a nice sunny hillside and sleep off his latest jag, thus combining a steam bath and a good long rest. Awakening one morning from his nap, still groggy, he spotted a man running around the hill with a fish net, apparently trying to pull a fish out of the air. Billie walked over to him, placed his hand on his shoulder, and said, 'You'd better come to town with me, friend.' The stranger explained that he was searching for bugs. Billie smiled indulgently and said, 'Sure, I know. I've had 'em myself, but you better come to town with me.' The stranger, convinced by this time that Billie was crazy, decided he had better humor him, and allowed himself to be led to town. Later Billie discovered that his 'crazy man' was Tom Spalding, the man who put Utah on the Entomological map. Spalding, a natural-born collector, sold one collection for \$1,400, and another is included in the \$3,000,000 Barnes collection at Decatur, Illinois. (Now in the U. S. Nat. Mus. at Wash.) Spalding first came to the notice of entomologists in 1910, when he captured a little blue butterfly, the first of its kind ever found; it was named *Philotes spaldingi*. Twelve other unusual specimens were named for Spalding. He died in Salt Lake City in 1929."

NOTE—Matter in ( ) not in original.